

## **AMENDMENTS TO THE SPECIFICATION:**

**Please replace** paragraph 1 of the Detailed Description (i.e., the first full paragraph on page 6 of the Substitute Specification) with the following amended paragraph (additions indicated by underlining, deletions indicated by strikeouts):

Referring to Fig. 1, the method according to the present invention maps a functioning of the byte code program (102a) by a potentially infinite state transition system (102b) onto a finite state transition system (102c) using an algorithm describing first properties of byte code instructions (block 102). A state space (104a) of an interpreter is mapped onto a finite set of states (104b) in the finite state transition system (102c), information not needed for a checking of an acceptability of the byte code program being omitted, so that the finite state transition system contains only type information useable for the checking of the acceptability of the byte code program (block 104). The type information useable for the checking of the acceptability of the byte code program is entered into a model checker (block 106). Second properties which characterize an acceptable byte code program are determined using a logic operation including formulas (block 108). The determined second properties which characterize an acceptable byte code program are entered as conditional set into the model checker, the conditional set including a plurality of individual conditions (block 110). Using the model checker, each of the plurality of individual conditions is interpreted as a specification language for system properties of the byte code program (block 112). Using the model checker, whether each of the plurality of individual conditions is fulfilled by the state transition system is verified (block 114). Then, the byte code program is automatically released for further processing when the state transition system fulfills all of the plurality of individual conditions (see block 116).